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PERFORMANCE STANDARDS
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ARTICLE 14

PERFORMANCE STANDARDS

PART 1 14-100 GENERAL PROVISIONS

14-101 Applicability

1. No permitted, special permit or special exception use hereafter established, altered, modified or enlarged shall be operated or designed so as to conflict with the applicable performance standards established by this Article, except as qualified in Sect. 102 below.
2. Any existing use that complies with the applicable performance standards of this Article on the effective date of this Ordinance shall continue to so comply. If, at such time, the operations of any lawful existing use violate any of the applicable performance standards of this Article, such operations shall not be varied or changed in such a way as to increase the degree of such violation.
3. Any use which is a lawful nonconforming use, and which on the effective date of this Ordinance complies with the applicable performance standards of this Article, shall continue to so comply. If, at such time, the operations of such lawful nonconforming use violate the specified standards, such operations shall not be varied or changed in such a way as to increase the degree of such violation.
4. The fact that the operations of a lawful existing use violate the applicable performance standards of this Article shall not of itself make such use subject to the requirements of Article 15 relating to nonconformities.

14-102 Performance Standards Not Applicable

The performance standards presented in this Article shall not apply to Group 1 special permit uses regardless of the zoning district in which such uses may be located. Group 1, Extraction and Excavation Uses, shall be subject to compliance with the performance standards presented in Sect. 8-105.

14-103 Administration of Certain Performance Standards

For the purpose of administering the required performance standards relative to Vibration and Glare, the standards are presented in two (2) basic groups, namely: Group I and Group II. Table IV sets forth the applicable performance standard that must be met in each zoning district.

PART 2 14-200 AIR POLLUTION STANDARD

Any activity, operation or device which causes or tends to cause the release of air contaminants into the atmosphere shall comply with the rules and regulations of the State and the Fairfax County Air Pollution Control Ordinance.

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PART 3 14-300 FIRE AND EXPLOSION HAZARD STANDARD

All operations, activities and uses shall be conducted so as to comply with the Fire Prevention Code (Chapter 62 of The Code).

PART 4 14-400 RADIATION HAZARD STANDARD

All operations, activities and uses shall comply with the regulations of the U.S. Atomic Energy Commission set out in Chapter 1 of Title 10 of the Code of Federal Regulations which apply to byproduct material, source material and special nuclear material, as those terms are defined in section 11e., z., and aa. of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2014(e), (z), and (aa)).

No activity, operation or use shall cause radiation emissions which are in violation of the Radiation Health and Safety Act of 1968 (PL 90-602), as amended, or the implementing regulations of the Virginia Department of Health established pursuant thereto.

PART 5 14-500 ELECTROMAGNETIC RADIATION AND INTERFERENCE STANDARD

No activity, operation or use shall cause electromagnetic radiation interference that (a) adversely affects persons or the operation of any equipment across lot lines and (b) is not in conformance with the regulations of the Federal Communications Commission.

PART 6 14-600 LIQUID AND SOLID WASTES STANDARD

Any activity, operation or device which causes or tends to cause the discharge or other release of liquid or solid waste into public sanitary sewers, storm drains or public waters shall comply with applicable laws, rules and regulations governing such discharge or release, including but not limited to the Federal Water Pollution Control Act; the Virginia Water Control Law; and the Fairfax County Code provisions on sewers and sewage disposal, pollution of state waters, maintenance and cleanliness of storm drainage facilities, garbage, trash and refuse, and erosion and sediment control.

PART 7 14-700 NOISE STANDARDS

No use, operation or activity shall cause or create noise in excess of the sound levels prescribed in Chapter 108 of The Code.

PART 8 14-800 EARTHBOEN VIBRATION STANDARDS

14-801 Required Performance Level

No use, operation or activity shall cause or create earthborn vibrations in excess of the peak particle velocities prescribed below.

14-802 Method of Measurement

1. Measurements shall be made at or beyond the adjacent lot line, nearest R district boundary line, or nearest district boundary line as indicated below. Ground transmitted vibration

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shall be measured with a seismograph or complement of instruments capable of recording vibration displacement and frequency, particle velocity, or acceleration simultaneously in three (3) mutually perpendicular directions.

2. The maximum particle velocity shall be the maximum vector sum of three (3) mutually perpendicular components recorded simultaneously. Particle velocity may also be expressed as 6.28 times the displacement in inches multiplied by the frequency in cycles per second.
3. For the purpose of this Ordinance, steady state vibrations are vibrations which are continuous, or vibrations in discrete impulses more frequent than sixty (60) per minute. Discrete impulses which do not exceed sixty (60) per minute shall be considered impact vibrations.

14-803 Group I Vibration Standards

1. Uses subject to Group I standards shall not cause steady state vibrations to exceed the maximum permitted particle velocities described in Table I below. Where more than one set of vibration levels apply, the most restrictive shall govern. Readings may be made at points of maximum vibration intensity.

**TABLE I
MAXIMUM PERMITTED STEADY STATE VIBRATION LEVELS**

Location (at Lot Line)	Maximum peak particle velocity inches per second
In a residential district	0.02
At or beyond adjacent lot lines, except a residential district	0.05

2. Impact vibrations shall be permitted at twice the values stated above.
3. Between the hours of 8 PM and 7 AM, all of the permissible vibration levels indicated above in Table I for R districts shall be reduced to one-half (½) the indicated values.

14-804 Group II Vibration Standards

1. Uses subject to Group II standards shall not cause steady state vibrations to exceed the maximum permitted particle velocities described in Table II below. Where more than one set of vibration levels apply, the most restrictive shall govern. Readings may be made at points of maximum vibration intensity.

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TABLE II
MAXIMUM PERMITTED STEADY STATE VIBRATION LEVELS

Location (at Lot Line)	Maximum peak particle velocity inches per second
In a residential district	0.02
At or beyond adjacent lot lines, except a residential district	0.10
2. Impact vibrations shall be permitted at twice the values stated above.	
3. Between the hours of 8 PM and 7 AM, all of the permissible vibration levels indicated above in Table II for R districts shall be reduced to one-half (½) the indicated values.	
4. When the frequency of impacts does not exceed one (1) per day, the maximum vibration level, measured across lot lines, shall not exceed 0.4 inches per second.	

PART 9 14-900 GLARE STANDARDS

14-901 Required Performance Level

All uses, operations and activities shall be conducted so as to comply with the performance standards governing glare prescribed below.

14-902 Method of Measurement

Illumination levels shall be measured with a photoelectric photometer having a spectral response similar to that of the human eye, following the standard spectral luminous efficiency curve adopted by the International Commission on Illumination.

14-903 General Requirements

Uses subject to Group I and Group II standards shall not produce glare so as to cause illumination in R districts in excess of 0.5 foot candles. Flickering or bright sources of illumination shall be controlled so as not to be a nuisance in R districts.

14-904 Group I and Group II Standards

Uses subject to Group I and Group II standards shall limit the use of light sources and illuminated surfaces which are located in or are within 500 feet of and visible within any R district so as to comply with the light intensities indicated in Table III below.

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**TABLE III
MAXIMUM INTENSITY OF LIGHT SOURCES**

SOURCE	INTENSITY	
	Group I	Group II
Bare incandescent bulbs	15 watts	40 watts
Illuminated buildings	15 foot candles	30 foot candles
Back lighted or luminous background signs	150 foot lamberts	250 foot lamberts

**TABLE IV
REQUIRED PERFORMANCE STANDARDS
(GROUP I OR GROUP II)**

TOPIC	ZONING DISTRICT				
	All R Districts	C-1 through C-4	C-5 through C-8	I-1 through I-4	I-5 and I-6
VIBRATION	I	I	I	I	II
GLARE	I	I	II	I	II

Note: Required performance standards for uses in P Districts shall equate those standards for uses in the most similar R, C or I District, as determined by the Zoning Administrator.

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